IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with <u>underlining</u> and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND the claims as follows:

1. (Currently Amended) An apparatus for compressing a plurality of structured documents having a common data structure <u>and including a plurality of kinds of markup tags</u>, said apparatus comprising:

a tag list obtaining unit obtaining ~~only one~~ <u>a single</u> tag list, common to said ~~plural~~ <u>plurality of</u> structured documents, that lists start markup tags and end markup tags in the order that they appear in <u>each of</u> the <u>plurality of</u> structured documents, by removing element contents from the ~~common data structure~~ <u>structured documents</u>;

a structured document compressing unit, by replacing all <u>of the plurality of kinds of markup</u> tags in <u>each of</u> said ~~plural~~ <u>plurality</u> structured documents with a <u>same</u> single predetermined delimiter code, generating a plurality of compressed documents comprising element contents and <u>same</u> predetermined delimiter codes; and

an outputting unit outputting said single tag list, which is obtained by said tag list obtaining unit, and also said plurality of compressed documents, which are generated individually from said ~~plural~~ <u>plurality of</u> structured documents by said structured document compressing unit, in correspondence with one another.

2. (Previously Presented) A structured document compressing apparatus according to claim 1, wherein said structured document compressing unit further comprises:

a tag detecting unit detecting each start markup tag and end markup tag in individual said structured documents; and

a tag replacement unit replacing each start markup tag and end markup tag, detected by said tag detecting unit, with said predetermined delimiter code.

3. (currently amended) An apparatus for compressing a plurality of structured

documents having a common data structure, said apparatus comprising:

a tag detecting unit detecting ~~each~~all start markup ~~tag~~tags and end markup ~~tag~~tags in ~~individual~~each of said plurality of structured documents; and

a tag replacement unit replacing ~~said~~all start markup tags and end markup tags[[,]] detected by said tag detecting unit, with a same single predetermined delimiter code, to translate ~~individual~~each of said plurality of structured documents into a compressed document comprising element contents and same predetermined delimiter codes.

4. (currently amended) An apparatus for compressing a structured document, said apparatus comprising:

a subdocument extracting unit extracting a plurality of subdocuments having a common data structure, each of which is a region sandwiched between a start markup tag and an end markup tag that have a predetermined element name, from said structured document;

a tag detecting unit detecting each of said start markup tags and end markup tags in individual said plurality of subdocuments extracted by said subdocument extracting unit; and

a tag replacement unit replacing each of said start markup tags and end markup tags, detected by said tag detecting unit, with a same single predetermined delimiter code, to translate said structured document into a compressed document comprising element contents and same predetermined delimiter codes.

5. (currently amended) A structured document compressing apparatus according to claim 3, further comprising:

an attribute-bearing-tag discriminating unit discriminating whether or not said markup tag detected by said tag detecting unit is an attribute-bearing markup tag, which has an attribute value; and

an attribute-bearing-tag replacement unit replacing said attribute-bearing markup tag, discriminated by said attribute-bearing-tag discriminating unit, with a set of the attribute value and a same single predetermined delimiter code.

6. (currently amended) A structured document compressing apparatus according to claim 4, further comprising:

an attribute-bearing-tag discriminating unit discriminating whether or not said markup tag detected by said tag detecting unit is an attribute-bearing markup tag, which has an attribute

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value; and

an attribute-bearing-tag replacement unit replacing said attribute-bearing markup tag, discriminated by said attribute-bearing-tag discriminating unit, with a set of the attribute value and a _same_ single predetermined delimiter code.

7. (Previously Presented) A structured document compressing apparatus according to claim 3, further comprising:

a tag list holding unit holding a tag list in which start markup tags and end markup tags are listed in a predetermined order for definition of a predetermined data structure;

a tag rearranging unit rearranging start markup tags and end markup tags in individual said plurality of structured documents before compression, in the predetermined order according to the tag list held in said tag list holding unit; and

an omitted-tag supplementing unit supplementing a start markup tag and an end markup tag omitted in said structured document according to said tag list held in said tag list holding unit.

8. (Previously Presented) A structured document compressing apparatus according to claim 4, further comprising:

a tag list holding unit holding a tag list in which start markup tags and end markup tags are listed in a predetermined order for definition of a predetermined data structure;

a tag rearranging unit rearranging start markup tags and end markup tags in said structured document before compressed, in the predetermined order according to the tag list held in said tag list holding unit; and

an omitted-tag supplementing unit supplementing a start markup tag and an end markup tag omitted in said structured document according to said tag list held in said tag list holding unit.

9. (Previously Presented) A structured document compressing apparatus according to claim 5, further comprising:

a tag/attribute list holding unit holding a tag/attribute list in which start markup tags, end markup tags and an attribute name are listed in a predetermined order for the definition of a predetermined data structure;

a tag/attribute rearranging unit rearranging start markup tags, end markup tags and an attribute in individual said plurality of structured documents to be compressed, in the predetermined order according to the tag/attribute list held in said tag/attribute list holding unit;

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and

an omitted tag/attribute supplementing unit supplementing a start markup tag and an end markup tag and/or an attribute omitted in individual said plurality of structured documents according to the tag/attribute list held in said tag/attribute list holding unit.

10. (Previously Presented) A structured document compressing apparatus according to claim 6, further comprising:

a tag/attribute list holding unit holding a tag/attribute list in which start markup tags, end markup tags and an attribute name are listed in a predetermined order for the definition of a predetermined data structure;

a tag/attribute rearranging unit rearranging start markup tags, end markup tags and an attribute in said structured document to be compressed, in the predetermined order according to the tag/attribute list held in said tag/attribute list holding unit; and

an omitted tag/attribute supplementing unit supplementing a start markup tag and an end markup tag and/or an attribute omitted in said structured document according to the tag/attribute list held in said tag/attribute list holding unit.

11. (currently amended) A method for compressing a plurality of structured documents having a common data structure using a computer, said method comprising:

obtaining ~~only one~~a single tag list, common to said plural structured documents, that lists start markup tags and end markup tags in ~~the~~ order that they appear in the structured documents, by removing element contents ~~from the common data structure~~;

replacing ~~each~~all of said start markup tags and end markup tags in ~~individual~~each of said plural structured documents that correspond to the tag list in said plural structured documents with a same single predetermined delimiter code, to generate a plurality of compressed documents comprising same predetermined delimiter codes and element contents; and

outputting the single tag list and the plurality of compressed documents generated from said plural structured documents, in correspondence with one another.

12. (currently amended) A method for compressing a plurality of structured documents having a common data structure using a computer, where the structured document comprises content start markup tags and end markup tags that are separate from the content and the markup tags structure the content, said method comprising:

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detecting ~~each~~all start markup ~~tag~~tags and end markup ~~tag~~tags in ~~individual~~each of said plurality of structured documents; and

replacing ~~each~~all start markup ~~tag~~tags and end markup ~~tag~~tags with a same single predetermined delimiter code, to translate ~~individual~~each of said plurality of structured documents into a compressed document comprising element contents and same predetermined delimiter codes.

13. (currently amended) A method for compressing a structured document using a computer, said method comprising:

extracting a plurality of structure subdocuments having a common data structure, each of which is a region sandwiched between a start markup tag and an end markup tag that have a predetermined element name, from said structured document;

detecting ~~each~~all start markup ~~tag~~tags and end markup ~~tag~~tags in ~~individual~~each of said plurality of subdocuments; and

replacing ~~each~~all start markup ~~tag~~tags and end markup ~~tag~~tags with a same single predetermined delimiter code, to translate said structured document into a compressed document comprising element contents and same predetermined delimiter codes.

14. (currently amended) A computer readable ~~record~~recoding medium which stores a structured document compressing program for instructing a computer to execute a function of compressing a plurality of structured documents having a common data structure, wherein said structured document compressing program instructs the computer to function as:

a tag list obtaining unit obtaining ~~only one~~a single tag list, common to said plural structured documents, that lists start markup tags and end markup tags in ~~the~~order that they appear in the structured documents, by removing element contents ~~from the common data~~ ~~structure~~;

a structured document compressing unit, by replacing ~~each of said~~all start markup tags and end markup tags in ~~individual~~each of said plural structured documents that correspond to the tag list in said plural structured documents with a same single predetermined delimiter code, generating a plurality of compressed documents comprising ~~said~~said the same single predetermined delimiter and element contents; and

an outputting unit outputting said single tag list, which is obtained by said tag list obtaining unit, and also said plurality of compressed documents, which are generated

individually from said plural structured documents by said structured document compressing unit, in correspondence with one another.

15. (currently amended) A computer readable ~~record~~recording medium which stores a structured document compressing program for instructing a computer to execute a function of compressing a plurality of structured documents having a common data structure, wherein said structured document compressing program instructs the computer to function as:

a tag detecting unit detecting ~~each~~all start markup ~~tag~~tags and end markup ~~tag~~tags in ~~individual~~each of said plurality of structured documents; and

a tag replacement unit replacing ~~each~~all start markup ~~tag~~tags and end markup ~~tag~~tags, detected by said tag detecting unit, with a same single predetermined delimiter code, to translate ~~individual~~each of said plurality of structured documents into a compressed document comprising element contents and same predetermined delimiter codes.

16. (currently amended) A computer readable ~~record~~recording medium which stores a structured document compressing program for instructing a computer to execute a function of compressing a structured document, wherein said structured document compressing program instructs the computer to function as:

a subdocument extracting unit extracting a plurality of subdocuments having a common data structure, which is a region sandwiched between a start markup tag and an end markup tag that have a predetermined element name, from said structured document;

a tag detecting unit detecting ~~each~~ all start markup ~~tag~~tags and end markup ~~tag~~tags in ~~individual~~each of said plurality of subdocuments extracted by said subdocument extracting unit; and

a tag replacement unit replacing ~~each~~all start markup ~~tag~~tags and end markup ~~tag~~tags, detected by said tag detecting unit, with a same single predetermined delimiter code, to translate said structured document into a compressed document comprising element contents and same predetermined delimiter codes.

17. (currently amended) An apparatus, comprising:

a structured document compressor generating a plurality of compressed documents ~~generated~~ by replacing ~~each of~~all start markup tags and end markup tags in a plurality of ~~original~~ structured documents having a common data structure ~~with a single predetermined delimiter~~

~~code and which comprise~~and element contents ~~and predetermined delimiter codes~~, with a same single predetermined delimiter based upon ~~, on the basis of~~ a tag list in which start markup tags and end markup tags in said plural ~~original~~ structured documents are listed in ~~the~~ order of appearance by removing the element contents ~~from the common data structure~~;

a duplicating unit expanding/duplicating a data structure corresponding to said tag list, as a duplicated data structure, on a memory; and

a writing unit writing element contents of each of said compressed documents into predetermined regions of said duplicated data structure extended on said memory, in accordance with a correspondence between a position of a start markup tag or an end markup tag in said duplicated data structure and a position of the same single predetermined delimiter code in each of said compressed documents.

18. (currently amended) An apparatus comprising:

a plurality of compressed documents generated by replacing ~~each of~~all start markup tags and end markup tags in a plurality of ~~original~~ structured documents having a common data structure ~~with a single predetermined delimiter code and which comprises~~and element contents ~~and predetermined delimiter codes~~, with a same single predetermined delimiter;

a tag list holding unit holding a tag list in which markup tags in said structured document are listed in ~~the~~ order of appearance by removing the element contents ~~from the common data structure~~;

a delimiter code detecting unit detecting ~~each of~~ the same single predetermined delimiter ~~codes~~code in said compressed document; and

a tag restoring unit replacing the same single predetermined delimiter code, detected by said delimiter code detecting unit, with a corresponding markup tag on said tag list, in accordance with a correspondence between a position of the markup tag in said tag list and a position of the same single predetermined delimiter code detected by said delimiter code detecting unit.

19. (Currently Amended) An apparatus comprising:

a compressed document generated by replacing ~~each of~~all start markup tags and end markup tags in a plurality of subdocuments having a common data structure, each of which is a region, in an original structured document, sandwiched between a start markup tag and an end markup tag that have a predetermined element name and element contents, with a same single

predetermined delimiter code ~~and which comprises element contents and predetermined delimiter codes~~;

a tag list holding unit holding a tag list in which markup tags in ~~individual~~each of said plurality of subdocuments are listed in ~~the~~ order of appearance by removing the element contents ~~from the common data structure~~;

a subdocument extracting unit extracting ~~individual~~each of said plurality of subdocuments from said compressed document;

a delimiter code detecting unit detecting ~~each of~~ the same single predetermined delimiter ~~codes~~code in ~~individual~~each of said plurality of subdocuments extracted by said subdocument extracting unit; and

a tag restoring unit replacing the same single predetermined delimiter code, detected by said delimiter code detecting unit, with a corresponding start markup tag or end markup tag on said tag list, in accordance with a correspondence between a position of the start markup tag or the end markup tag in said tag list and a position of the same single predetermined delimiter code detected by said delimiter code detecting unit.

20. (currently amended) A structured document decompressing apparatus according to claim 18, wherein if an attribute inside an attribute-bearing markup tag in ~~individual~~each of said plurality of original structured documents is replaced with a set of an attribute value and a same single predetermined delimiter code in ~~individual~~each of said plurality of compressed documents, said apparatus further comprises:

an attribute list holding unit holding an attribute list in which attribute names in ~~individual~~each of said plurality of compressed documents are listed in ~~the~~ order of appearance;

an attribute-bearing-tag discriminating unit discriminating whether ~~or not~~ a given markup tag to be restored by said tag restoring unit is an attribute-bearing markup tag; and

an attribute-bearing-tag restoring unit restoring said attribute-bearing markup tag discriminated by said attribute-bearing-tag discriminating unit, in accordance with a correspondence between an attribute value for said attribute-bearing markup tag and an attribute name in said attribute list.

21. (currently amended) A structured document decompressing apparatus according to claim 19, wherein if an attribute inside an attribute-bearing markup tag in said ~~original~~ structured document is replaced with a set of an attribute value and a same single predetermined delimiter

code in said compressed document, said apparatus further comprises:

an attribute list holding unit holding an attribute list in which attribute names in said compressed document are listed in ~~the~~ order of appearance;

an attribute-bearing-tag discriminating unit discriminating whether ~~or not~~ a given markup tag to be restored by said tag restoring unit is an attribute-bearing markup tag; and

an attribute-bearing-tag restoring unit restoring said attribute-bearing markup tag discriminated by said attribute-bearing-tag discriminating unit, in accordance with a correspondence between an attribute value for said attribute-bearing markup tag and an attribute name in said attribute list.

22. (currently amended) A method comprising:

generating a plurality of compressed documents by replacing ~~each of~~all start markup tags and end markup tags in a plurality of ~~original~~ structured documents having a common data structure and element contents, with a same single predetermined delimiter code ~~and which comprise element contents and predetermined delimiter codes, on the basis of~~ based upon a tag list in which start markup tags and end markup tags in said plural ~~original~~ structured documents are listed in ~~the~~ order of appearance by removing the element contents ~~from the common data structure~~;

expanding/duplicating a data structure corresponding to said tag list, as a duplicated data structure, on a memory; and

writing element contents of each of said compressed documents into predetermined regions of said duplicated data structure extended on said memory, in accordance with a correspondence between a position of a start markup tag or an end markup tag in said duplicated data structure and a position of the same single predetermined delimiter code in each of said compressed documents.

23. (currently amended) A method comprising:

generating a plurality of compressed documents by replacing ~~each of~~all start markup tags and end markup tags in a plurality of ~~original~~ structured documents having a common data structure and element contents, with a same single predetermined delimiter code ~~and which comprises element contents and predetermined delimiter codes~~;

holding a tag list in which start markup tags and end markup tags in said structured document are listed in ~~the~~ order of appearance by removing the element contents from the

~~common data structure~~structured documents;

detecting ~~each of~~ the single predetermined delimiter ~~codes in individual~~code in each of said plurality of compressed documents; and

replacing the detected single predetermined delimiter code with a corresponding start markup tag or end markup tag on said tag list, in accordance with a correspondence between a position of the detected single predetermined delimiter code and a position of the start markup tag or the end markup tag in said tag list.

24. (currently amended) A method comprising:

generating a compressed document by replacing ~~each of~~all start markup tags and end markup tags in a plurality of subdocuments having a common data structure, each of which is a region, in an original structured document, sandwiched between a start markup tag and an end markup tag that have a predetermined element name and element contents, with a same single predetermined delimiter code ~~and which comprises element contents and predetermined delimiter codes~~;

holding a tag list in which start markup tags and end markup tags in ~~individual~~each of said plurality of subdocuments are listed in ~~the~~ order of appearance by removing the element contents ~~from the common data structure~~;

extracting ~~individual~~each of said plurality of subdocuments from said compressed document;

detecting ~~each of~~the same single predetermined delimiter ~~codes in individual~~code in each of said extracted plurality of subdocuments; and

replacing the detected same single predetermined delimiter code with a corresponding start markup tag or end markup tag on said tag list, in accordance with a correspondence between a position of the detected same single predetermined delimiter code and a position of the start markup tag or the end markup tag in said tag list.

25. (currently amended) A computer readable ~~record~~recording medium encoded with ~~a method~~instructions for instructing a computer to ~~perform a method~~execute operations comprising:[[,]]

generating a plurality of compressed documents by replacing ~~each of~~all start markup tags and end markup tags, in a plurality of ~~original~~structured documents having a common data structure, which have element contents and delimiter codes, with a same single predetermined

delimiter code ~~and which comprise element contents and predetermined delimiter codes, on the basis of~~ based upon a tag list in which start markup tags and end markup tags in said plural structured documents are listed in ~~the~~ order of appearance by removing the element contents ~~from the common data structure~~;

a duplicating unit expanding/duplicating a data structure corresponding to said tag list, as a duplicated data structure, on a memory; and

a writing unit writing element contents of each of said compressed documents into predetermined regions of said duplicated data structure extended on said memory, in accordance with a correspondence between a position of a start markup tag or an end markup tag in said duplicated data structure and a position of the same single predetermined delimiter code in each of said compressed documents.

26. (currently amended) A computer readable ~~record~~recording medium encode with a ~~method~~instructions for instructing a computer to ~~perform a method~~execute operations comprising:

generating a plurality of compressed documents by replacing ~~each of~~all start markup tags and end markup tags, in a plurality of ~~original~~ structured documents having a common data structure and element contents, with a same single predetermined delimiter code ~~and which comprises element contents and predetermined delimiter codes~~;

a delimiter code detecting unit detecting ~~each of~~ the same single predetermined delimiter codes in ~~individual~~each of said plurality of compressed documents; and

a tag restoring unit replacing the same single predetermined delimiter code, detected by said delimiter code detecting unit, with a corresponding start markup tag or end markup tag on a tag list in which start markup tags and end markup tags in ~~individual~~each of said plurality of structured documents are listed in ~~the~~ order of appearance by removing the element contents ~~from the common data structure,~~ in accordance with a correspondence between a position of the start markup tag or the end markup tag in said tag list and a position of the same single predetermined delimiter code detected by said delimiter code detecting unit.

27. (currently amended) A computer readable ~~record~~recording medium encoded with ~~a method~~instructions for instructing a computer to ~~perform a method~~execute operations comprising:

generating a compressed document by replacing ~~each of~~all start markup tags and end

markup tags in a plurality of subdocuments having a common data structure, each of which is a region, in an original structured document, sandwiched between a start markup tag and an end markup tag that have a predetermined element name and element contents, with a same single predetermined delimiter code ~~and which comprises element contents and predetermined delimiter codes~~;

a subdocument extracting unit extracting ~~individual~~ each of said plurality of subdocuments from said compressed document;

a delimiter code detecting unit detecting ~~each of~~ the same single predetermined delimiter ~~codes in individual~~ code in each of said plurality of subdocuments extracted by said subdocument extracting unit; and

a tag restoring unit replacing the same single predetermined delimiter code, detected by said delimiter code detecting unit, with a corresponding start markup tag or end markup tag on a tag list in which start markup tags and end markup tags in said subdocument are listed in ~~the~~ order of appearance by removing the element contents ~~from the common data structure~~, in accordance with a correspondence between a position of the start markup tag or the end markup tag in said tag list and a position of the same single predetermined delimiter code detected by said delimiter code detecting unit.

28-39. (Cancelled)